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Listing first 45 summaries
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      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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   January 7, 2002, 15:42:01; Search time 77.81 Seconds (without alignments) 291.208 Million cell updates/sec
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3277
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Copyright (c) 1993 - 2000 Compugen Ltd.
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   밁
 BIRA_MOUSE
BIRA_RAT
IAP2_DROME
IAP2_DROME
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BIRE_MOUSE
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BIRA_MOUSE
BIRA_HUMAN
IAP1_GVCP
IAP1_NEVOP
IAP1_NEVOP
IAP1_NEVOP
IAP1_NEVOP
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BIR2_MOUSE
PIAP_PIG
BIR4_HUMAN
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BIR3_MOUSE
BIR2_HUMAN
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013490 homo sapien
062210 mus musculu
013493 homo sapien
090660 gallus gall
008863 mus musculu
062640 sus scrofa
p98170 homo sapien
060999 mus musculu
091016 rattus norv
024307 drosophila
P41437 orgyla pseu
09116 mus musculu
091163 mus musculu
091165 mus musculu
091165 mus musculu
091165 mus musculu
091165 mus musculu
091167 mus musculu
091163 mus musculu
091167 mus musculu
091175 homo sapien
014046 drosophila
014064 schizosacch
010296 orgyla pseu
091079 homo sapien
041454 autographa
041647 autographa
041647 rattus norv
070201 mus musculu
09177 homo sapien
0417734 orgyla pseu
0710317 homo sapien
0417734 orgyla pseu
0710317 homo sapien
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091877 rattus norv
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Matches 618
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Pfam; PF00659; CARD; 11.
Pfam; PF00697; C-C3HC4; 1.
SMART; SM00238; BIR; 3.
SMART; SM00114; CARD; 1.
SMART; SM00184; RING; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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SIMILARITY: CONTAINS 3 BIR REPEATS.
SIMILARITY: CONTAINS 1 CAND DOWAIN.
SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SWISS-PROT entry is copyright. It is produced through ween the Swiss Institute of Bioinformatics and the Ewen European Bioinformatics Institute. There are no restruct. By non-profit institutions as long as its content
                                   NDVKCFCCDGGLRCWESGDDPWVEHAKWFPRCEFLIRMKGQBFVDEIGGRYPHLLEQLL
                                                                                                 RRHFPNCPFLENSLETLRESISNLSMQTHAARMRTFMYWPSSVPVQPEQLASAGFYYVGR
                                                                                                                                                 MSTEEARFLTYHMWPLTFLSPSELARAGFYYIGPGDRVACFACGGKLSNWEPKDDAMSEH
                                                                                                                                                                                                  LGSTSKNTSPMRNSFAHSLSPTLEHSSLFSGSYSSLSDNPLNSRAVEDISSSRTNPYSYA
                                                                                                                                                                                                                                                                                                     MHKTASQRLFPGPSYQNIKSIMEDSTILSDWTNSNKQKMKYDFSCELYRMSTYSTFPAGV
              STSDTTGEENADPPIIHFGPGESSSEDAVMMNTPVVKSALEMGFNRDLVKQTVQSKILTT
                                                                                                                                                                                                                                                   PVSERSLARAGFYYTGVNDKVKCFCCGLMLDNWKLGDSPIQKHKQLYPSCSFIQNLVSAS
RRHFPNCPFLENSLETLRFSISNLSMQTHAARMRTFMYWPSSVPVQPEQLASAGFYYVGR
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; IPR001315; CARD.
; IPR001841; Znf_ri
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PS50209; CARD; 1.
9; Zinc-finger; Repeat;
46 113 BII
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BIR 1.
BIR 1.
BIR 3.
CARD.
RING-TYPE.
S > P (IN REF. 2).
C -> G (IN REF. 2).
C -> W (IN REF. 2).
VW; C1778D328063586D CI
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Pred. No. 1.2e-212;
); Mismatches 0;
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RESULT 2
BIR3_MOUSE
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Genomics 46:495-503(1997).

C -1 FUNCTION: APOPTOTIC SUPPRESSOR. THE BIR MOTIFS REGION IN COMPANY THE TWE RECEPTOR ASSOCIATED FACTORS 1 AND 2 (TRAF1 AND PORM AN HETEROMERIC COMPLEX, WHICH IS THEN RECRUITED TO NECROSIS FACTOR RECEPTOR 2 (TNF2).

C -1 SUBCELLULAR LOCATION: CYTOPLASMIC (POTENTIAL).

C -1 TISSUE SPECIFICITY: EXPRESSED IN HEART, BRAIN, SPLEEN, L LIVER, SKELETAL MUSCLE, KLDUEY, AND TESTIS.

C -1 SIMILARITY: BELONGS TO THE IAP FAMILY.

C -1 SIMILARITY: CONTAINS 3 BIR REPEATS.

C -1 SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
EMBL; L49433; AAC42078.1; EMBL; U89909; AAC5532.1; GMGD; MGI:1197009; Birc3. InterPro; IPR001370; BIR. InterPro; IPR001315; CARD.
                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions use by non-profit institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DIR3_MOUSE STANDARD; PRT; 612 AA. 662210; 008864; 01-NOV-1997 (Rel. 35, Created) 01-NOV-1997 (Rel. 35, Last sequence update) 20-AUG-2001 (Rel. 40, Last annotation update) BACULOVIRAL JAP REPEAT-CONTAINING PROTEIN 3 (INHIBITOR OF APOPTOSIS PROTEIN 2) (MIAP2) (MIAP-2).
                                                                                                                                                            or send
                                                                                                                                                                                                                   modified
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MEDLINE-98110590; PubMed-9441758;
MEDLINE-98110590; PubMed-9441758;
Liston P., Lefebbre C., Pong W.G., Xuan J.Y., Kor
"Genomic characterization of the mouse inhibitor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Roche M., Pan M., G., Henzel W.J., Ayres T.M., Goe "The TNPR2-TRAF signaling complex contains two no to baculoviral inhibitor of apoptosis proteins."; Cell 83:1243-1252(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                         entities
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MEDLINE=96128127; PubMed=8548810;
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                                                                                                                                                            s requires a license agreement (S an email to license@isb-sib.ch).
                                                                                                                                                                                non-profit institute. There are no rest and this statement is not removed. Usage by an requires a license arrangement of the statement of the 
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Sciurognathi; Muridae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SPLEEN,
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                                                                                                                                                                                                                   is in no way for commercial
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Pfam; PF00015; CARD; 1.
Pfam; PF00019; zf-C3HC4; 1.
SMART; SM00218; BIR; 3.
SMART; SM00114; CARD; 1.
SMART; SM00114; CARD; 1.
SMART; SM001282; BIR_REPEAT_1; 3.
PROSITE; PS01282; BIR_REPEAT_2; 3.
PROSITE; PS01043; BIR_REPEAT_2; 3.
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ZN_FING
CONFLICT
SEQUENCE
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REPEAT
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REPEAT
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                  599
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         LRKCPICRGIIKGTVRTFLS
                                           LFVDKNMKYIPTEDVSGLSLEEQLRRLQEERTCKVCMDKEVSVVFIPCGHLVVCQECAPS
                                                                         ATGENYRTVNDIVSVLLNAEDERREEKERQTEENASGDLSLIRKNRMALFQQLTHYLPI
                                                                                                                         TTGENYKTVNDIVSALLNAEDEKREEEKEKQAEEMASDDLSLIRKNRMALFQQLTCVLPI
                                                                                                                                                     NDDVKCFCCDGGLRCWESGDDFWVEHAKWFPRCEFLIRMKGQEFVDEIOGRYPHLLEQLL
                                                                                                                                                                                                                                         RRHFPNCPFLENSLETLRFSISNLSMQTHAARMRTFMYWPSSVPVQPEQLASAGFYYVGR
                                                                                                                                                                                                                                                                               MSTEEARFLTYHMWPLTFLSPSELARAGFYYIGPGDRVACFACGGKLSNWEPKDDAMSEH
                                                                                                                                                                                                                                                                                                          LOSPSKNMSPVKSRFAHS-SP-LER----GGIHSNLCSSPLNSRAVEDF-SSRMDPCSYA
                                                                                                                                                                                                                                                                                                                    LGSTSKNTSPMRNSFAHSLSPTLEHSSLFSGSYSSLSPNPLNSRAVEDISSSRTNPYSYA
                                                                                                                                                                                                                                                                                                                                                MDKTVSQRLGQGTLHQKLKRIMEKSTILSNWTKESEEKMKFDFSCELYRMSTYSAFPRGV
LRKCPICRGTIKGTVRTFLS
                                    LFVEKNMKYIPTEDVSGLSLEEQ1RR1QEERTCKVCMDREVSIVFIPCGH1VVCQECAPS
                                                                                                                                                                      STSDTTGEENADP--PIIHFGPGESSSEDAVMMNTPVVKSALEMGFNRDLVKQTVQSKIL
                                                                                                                                                                                                                               RRHFPHCPFLENTSETQRFSISNLSMQTHSARLRTFLYWPPSVPVQPEQLASAGFYYVDR
                                                                                                                                                                                                                                                                     MSTEEARFLTYSMWPLSFLSPAELARAGFYYIGPGDRVACFACGGKLSNWEPKDDAMSEH
                                                                                                                                                                                          NDDVKCFCCDGGLRCWEPGDDPWIEHAKWFPRCEFLIRMKGQEFVDEIQARYPHLLEQLL
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46 113
177 243
262 329
447 533
565 580
380 380
612 AA; 6967
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243
2243
329
533
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380
69676
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83.4%;
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                  618
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BIR 2.
BIR 3.
CARD.
RING-TYPE.
RING-TYPE.
E -> K (IN NEF. 2).
E -> K E08969D93C6C610D C
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Pred. No. 8.5e
45; Mismatches
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RESULT 3
BIR2_HUMAN
ID BIR2_HUMAN
AC Q13489; Q16

Q16628;

STANDARD; 990P46;

PRT;

604

A

IPR001370;

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BLOOM 9:3418-3431(1999).

2. -i-FUNCTION: APOPTOTIC SUPPRESSOR. THE BIR MOTIFS REGION INTERACTS

2. -i-FUNCTION: APOPTOTIC SUPPRESSOR. THE BIR MOTIFS REGION INTERACTS

2. -i-FUNCTION: APOPTOTIC SUPPRESSOR. THEN PROCUMENT OF THE TUNOR

2. -i-FUNCTION: AND HETEROMERIC COMPLEX, WHICH IS THEN RECRUITED TO THE TUNOR

2. -i-FUNCTION: COMPLEX, WHICH IS THEN RECRUITED TO THE TUNOR

2. -i-FUNCTION: COMPLEX, COMPLEX, WHICH EXPRESSED IN FERAL LUNG, AND KIDNEY. IN

2. -i-FUNCTION: AND FRIPHERAL BLOOD LYMPHOCYTES.

3. -i-SUNILARITY: ONTAINS 1 CARD DOMAIN.

3. -i-SUNILARITY: CONTAINS 1 CARD DOMAIN.

3. -i-SUNILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
                                                                                                                                                                                                                                      This SWI
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                                                                                                                                                              use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and if entities requires a license agreement (See http://www.isb-sib.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Uren A.G., Pakusch M., Hawkins C.J., "Cloning and expression of apoptosis function to inhibit apoptosis and/or receptor-associated factors.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nature
[3]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Liston P., Roy N., Tamai K., Lefebvre C., Baird Farahani R., McLean M., Ikeda J., MacKenzie A., "Suppression of apoptosis in mammalian cells by family of IAP genes.";
Nature 379:349-353(1996).
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MEDLINE-96128127; PubMed-8548810;

Rothe M., Pan M.-G., Henzel W.J., Ayres T.M., Goeddel "The TMRR2-TRAF signaling complex contains two novel to baculoviral inhibitor of apoptosis proteins."; Cell 83:1243-1252(1995).
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01-NOV-1997 (Rel. 35, Last sequence update)
01-NUF-2001 (Rel. 40, Last annotation update)
20-NUF-2001 (Rel. 40, Last annotation update)
BAGULOVIRAL IAP REPEAT-CONTAINING PROTEIN 1 (INHIBITOR OF A PROTEIN 1) (HIAP1) (HIAP-1) (C-TAP2) (TNFR2-TRAF SIGNALING PROTEIN 1) (IAP HOMOLOG C).
BIRC2 OR API1 OR IAP1 OR MIHC.
                       EMBL;
                                                                                                                            or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Horrevoets A.J.,
ten Cate J.W., P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE=Liver;
MEDLINE~96149249; PubMed-8552191;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE-99252096;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Vascular endothelial genes that are responsive to tumor necrosis factor-alpha in vitro are expressed in atherosclerotic lesions,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              including inhibitor of apoptosis protein-1, stannin, and two
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LINE-99252096; PubMed-10233894; revoets A.J., Fontijn R.D., van Cate J.W., Pannekoek H.;
                                                                                                                                                                                                               s SWISS-PROT entry is copyright. It is produced the ween the Swiss Institute of Bloinformatics and t European Bloinformatics Tostitute. There are no by non-profit institutions as long as its con
                 ; L49432; AAC41943.1;
; U45878; AAC50371.1;
; U37546; AAC50507.1;
; AF070674; AAC83232.1;
601712;
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Primates;
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Catarrhini; Hominidae;
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inhibitory
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NAIP and a related
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Matches 440
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Pfam; PF00
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SMART; SM00114; CARD; 1
SMART; SM00184; RING; 1
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Pfam; PF00097; zf-C3HC4; 1.
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                                    LNAEDEKREEEKEKQAEEMASDDLSLIRKNRMALFQQLTCVLPILDNLLKANVINKQEHD
                                                                                                                                                                                                                                                                                                             IIHFGPGESSSEDAVMMNTPVVKSALEMGFNRDLVKQTVQSKILTTGENYKTVNDIVSAL
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440; Conser
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PS50143; BIR_REPEAT_2;
PS50209; CARD; 1
916
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IPR001841; Znf_ring.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Zinc-tinger;
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Pred. No. 1.2e
71; Mismatches
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1.2e-150;
nes 87;
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Query Match Best Local S Matches 424

Similarity 69.2 24; Conservative

69

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Score Pred.

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Length

611;

Mismatches e 2233.5; DB 1; . No. 1.3e-142; ismatches 95;

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Gaps

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BIR_CHICK
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DE INHIBITOR
DE PROTEIN).
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OS Gallus 9al
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OC A
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InterPro; IPRO01370; BIR.
InterPro; IPR001315; CARD;
InterPro; IPR001841; Znf_ring.
Pfam; PF00653; BIR; 3.
Pfam; PF00653; CARD; 1.
Pfam; PF000619; CARD; 1.
Pfam; PF00097; Zf-C3HC4; 1.
SMART; SM00218; BIR; 3.
SMART; SM00114; CARD; 1.
SMART; SM00114; CARD; 1.
SMART; SM00184; RING; 1.
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01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
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Gallis gallus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutel
Chickenia; Aves; Neognathae; Galliformes; Phasianidae;
                               Apoptosis; Zinc-finger; Repeat; Nuclear protein
REPEAT 30 97 BlR 1.
REPEAT 176 242 BIR 2.
REPEAT 262 329 BIR 3.
ZN_FING 564 598 RING-TYPE.
                                                                                                                                                                            PROSITE; PS01282; BIR_REPEAT_1; PROSITE; PS50143; BIR_REPEAT_2; PROSITE; PS50209; CARD; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Enthe European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content use by non-profit institutions as long as its content modified and this statement is not removed. Usage by and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11 SUBCELLULAR LOCATION: PREDOMINANTLY NUCLEAR.
11 TISSUE SPECIFICITY: CELLS OF THE TLYMPHOCYTE LINEAGE. FOUND 1
BOTH CORTICAL AND MEDULLARY CELLS OF THE THYMUS.
11 DEVELOPMENTAL STAGE: HIGH LEVELS ARE INDUCED WITHIN 4-8 HOURS
11 DEVELOPMENTAL STAGE: HIGH LEVELS ARE INDUCED WITHIN 4-8 HOURS
12 TOELL ACTIVATION IN SPEER AND THYMUS.
13 SIMILARITY: BELONGS TO THE IAP FAMILY.
14 SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
15 SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE-97101112; PubMed-8945639;
Diddy M.R., Kimpton W.G., York J.J., Connick T.E., Low "ITPA, a vertebrate homologue of IAP that is expressed lymphocytes.";
DNA Cell Biol. 15:981-988(1996).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9031;
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FUNCTION: APOPTOTIC SUPPRESSOR (BY SIMILARITY).
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      AA;
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          69009 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Znf_ring.
   BIR 1.
BIR 2.
BIR 3.
RIMG-TYPE.
RIMG-TYPE.
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Phasianinae;
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SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.

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01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
20-AUG-2001 (Rel. 40, Last annotation update)
BACULOVIRAL IAP REPEAT-CONTAINING PROTEIN 2 (INHIBITOR PROTEIN 1) (WIAP1) (WIAP1) (WIAP1) (BIRC2 OR API) OR IAP1.
                                                                                                                                                       MEDLINE-98110590; PubMed-9441758;
Liston P., Lefebvre C., Fong W.G., Xuan J.Y., Korneluk R.G.;
"Genomic Characterization of the mouse inhibitor of apoptosis
                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae;
, KGBI_TaxID-1099;
       + + + +
                                                                                                                            Genomics 46:495-503(1997)
                                                                                                                                             1 and
                                                                                                                                                                                                                       SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                 Mus musculus (Mouse).
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                                                                                                                                        "Genomic characterization 1 and 2 genes.";
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FUNCTION: APOPTOTIC SUPPRESSOR. THE BIR MOTIFS REGION INTERACTS
WITH THE RECEPTOR ASSOCIATED PACTORS I AND 2 (TRAFI AND TARE2) TO
FORM AN HETEROMERIC COMPLEX, WHICH IS THEN RECRUITED TO THE TUMOR
RECROSIS FACTOR RECEPTOR 2 (TWEFA) (BY SIMILARITY).
SUBCELLULAR LOCATION: CYPOPLASHIC (POFENTIAL).
SIMILARITY: BELONGS TO THE IAP FAMILY.
SIMILARITY: CONTAINS 3 BIR REPEATS.
SIMILARITY: CONTAINS 1 CARD DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RGIIKGTVRTFLS
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                                                                                                                                                                                                          muscle;
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                                                                                                                                                           protein
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Best Local
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InterPro; IPR001315; CARD.
InterPro; IPR001441; Znf_rin
Pro; IPR001441; Znf_rin
Pfam; PP00653; BIR; 3.
Pfam; PP00659; CARD; 1.
Pfam; PP00699; zf-C3HC4; 1.
SMART; SM00144; CARD; 1.
SMART; SM00144; RING; 1.
SMART; SM00144; RING; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REPEAT
DOMAIN
ZN_FING
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS01282; BIR_REPEAT_1; PROSITE; PS50143; BIR_REPEAT_2; PROSITE; PS50209; CARD; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; U88908; AAC53531.1; ... MGD; MGI:1197007; Birc2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Apoptosis;
473
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                                             KDLGQSASRYTVSNLSMQTHAARIRTFSNWPSSALVHSQELASAGFYYTGHSDDVKCFCC
                                                                                                                                                                                                                                                                     YHMWPLTFLSPSELARAGFYYIGPGDRVACFACGGKLSNWEPKDDAMSEHRRHFPNCPFL
                                                                                                                                                                                                                                                                                                                              MRNSFAHSLSPTLEHSSLFSGSYSSLSPNPLNSRAVEDISSSRTNPYSYAMSTEEARFLT
                                                                                                                                                                                                                                                                                                                                                                             KVKCFCCGLMLDNWKLGDSPIQKHKQLYPSCSFIQNLVSA------SLGSTSKNTSP
                                                                                                                                                                                                                                                                                                                                                                                                                MYQDSAFLAKLMKSADTFELKYDFSCELYRLSTYSAFPRGVPVSERSLARAGFYYTGAND
                                                                                                                                                                                                                                                                                                                                                                                                                                           IMEDSTILSDWINS-NKQKMKYDFSCELYRMSTYSTFPAGVPVSERSLARAGFYYTGVND
EQECNAVKQKPH-TLQASTLIDTVLAKGNTAATSFRNSLREIDPALYRDIFVQQDIRSLP
                      KQEHDIIKQKTQIPLQARELIDTILVKGNAAANIFKNCLKEIDSTLYKNLFVDKNMKYIP
                                                                                                   NADAAIVHFGPGE-SSEDVVMMSTPVVKAALEMGFSRSLVRQTVQRQILATGENYRTVSD
                                                                                                              NADPPIIHEGPGESSSEDAVMMNTPVVKSALEMGENRDLVKQTVQSKILTTGENYKTVND
                                                                                                                                                     DGGLRCWESGDDPWVEHAKWFPRCEYLLRIKGQEFVSQVQAGYPHLLEQLLSTSDSPEDE
                                                                                                                                                                DGGLRCWESGDDPWVEHAKWFPRCEFLIRMKGQEFVDEIQGRYPHLLEQLLSTSDTTGEE
                                                                                                                                                                                                                               EN-SLETLRESISNLSMQTHAARMRTFMYWPSSVPVQPEQLASAGFYYVGRNDDVKCFCC
                                                                                                                                                                                                                                                            YETWPLSFLSPAKLAKAGFYYIGPGDRVACFACDGKLSNWERKDDAMSEHQRHFPSCPFL
                                                                                                                                                                                                                                                                                                           L--SFASS----ENTGYFSGSYSSFPSDPVNFRANQDCPALSTSPYHFAMNTEKARLLT
                                                                                                                                                                                                                                                                                                                                                                 KVKCFCCGLMLDNWKQGDSPMEKHRKLYPSCNFVQTLNPANSLEASPRPSLPSTAMSTMP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
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27 94
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600
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167
253
444
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Znf_ring.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  87;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 2172; DB 1;
Pred. No. 1.7e-138;
7; Mismatches 96;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             600;
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531
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                                                                                                        Query Match
Best Local
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                                                                                                                                                                                                                                                 Pfam: PF00653; BIR: 2.
Pfam: PF00659; CARO: 1.
Pfam: PF00097; zf-C3H44; 1.
SMART: SM00238; BIR: 2.
SMART: SM00144; CARD; 1.
SMART: SM00184; RTG; 1.
PROSITE: PS01282; BIR_REPEAT.
                                                                                                                                                           ZN_FING
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                       InterPro;
InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collabo between the Swiss Institute of Bioinformatics and the EMBL outsite the European Bioinformatics Institute. There are no restrictions or use by non-profit institutions as long as its content is in medified and this statement is not removed. Usage by and for commentities requires a license agreement (See http://www.isb-sib.ch/ann
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15-DEC-1998 (Rel. 37, Created)
15-DEC-1998 (Rel. 37, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation updat
PUTATIVE INHIBITOR OF APOPTOSIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PIAP.
                                                                                                                                                                                                                      PROSITE; PS01282; BIR_REPEAT_1; 2.
PROSITE; PS50143; BIR_REPEAT_2; 2.
PROSITE; PS50209; CARD; 1.
                                                                                                                                                                                                                                                                                                                                                                                   EMBL; U79142; AAC39171.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                          or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE-98162622; PubMed-9501011;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sus scrofa (Pig).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PIAP_PIG
                                                                                                                                                                                    REPEAT
                                                                                                                                                                                                                                                                                                                                            InterPro;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      532
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241 RRHEPNCPFLENSL-ETLRFSISNLSMQTHAARMRTFMYWPSSVPVQPEQLASAGFYYVG
                                                     181 MSTEEARFLTYHMWPLTFLSPSELARAGFYYIGPGDRVACFACGGKLSNWEPKDDAMSEH
                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TEDVSGISLEBDLERIGEERFCKVCMDKEVSVVFIPGGHLVVCQBCAPSLRKCPICRGII 609
TEDVSGISLEBDLERIGEERFCKVCMDKEVSVVFIPGGHLVVCQBCAPSLRKCPICRGII 609
TDDIAALPMEEQLRKLQEERMCKVCMDREVSIVFIPCGHLVVCKDCAPSLRKCPICRGII 591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KGTVRTFLS 618
                                        MNTEKDRLLTFQMWPLTFLSPADLAKAGFYYIGPGDRVACFACGGKLSNWEPKDDAMTEH
                                                                                                                                                         ; Zinc-finger; Repeat.

70 BIR

90 157 BIR

311 345 RIN

358 AA; 40977 MW; E
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IPR001315; CARD.
IPR001841; Znf_ring.
                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                         46.8%; Score 1532; DB 1;
65.1%; Pred. No. 7.8e-96;
                                                                                                                                                         BIR 1.
BIR 2.
RING-TYPE.
; EB2268FA9A6190A4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     358
                                                                                                                     Length 358;
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C -!- SUBCELLULAR LOCATION: CYTOPLASMIC.			Deveraux Q.L., Takahashi R., Salvesen G.S., Reed J.C.;	RP FUNCTION. RX MEDLINE=97373959; PubMed=9230442;			gene and encoding apoptosis inhibitors.";	A Giffitian M.C., Shiels H., natuwick J.M., induped C.S., T "A conserved family of cellular genes related to the baculovirus iap	MEDLINE-96256286; PubMed-8654366;		"Suppression of apoptosis in mammalian cells by	RA Liston P., Roy N., Tamai K., Lefebvre C., Baird S., Cherton-Horvat G., RA Farabani R. McLean M. Tkeda J., Mackenzie A., Korneluk R.G.:			Manmalia: Eutheria; Primates; Catarrhini; Hominidae				BACULOVIRAL IAP REPEAT CONTAINING PROTEIN 4 (INHIBITOR OF APOPTOSIS		R4	340 R	/ 600 RKCPICRGIIKGTVRTFLS 618	280	/ 540 FYDKNMKYIPTEDYSGLSLEEQLRRLQEERTCKYCMDKEYSYVFIPCGHLVYCQECAPSL 599	220	/ 480 DNLLKANVINKQEHDIIKQKTQIPLQARELIDTILVKGNAAANIFKNCLKEIDSTLYKNL 539	196	420 TGENYKTVNDIVSALLNAEDEKREEEKEKQAEEMASDDLSLIRKNRMALFQQLTCVLPIL	181 LSTSDNPEDENAEPP 195	360 LSTSDTTGE	121 HSDDVKCFCCDGGLRCWESGDDPWVEHAKWFPRCEYLIRIKGQEFISRVQASVPHLLEQL 180	300	

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Query Match
Best Local Similarity
Matches 205; Conserv
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CONFLICT
SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pfam; PF00653; BIR; 3.
Pfam; PF00097; zf-C3HC4; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; U45880;
EMBL; U32974;
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the European Bioinformatics Institute. There are no restrictions on i
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492
                                    412
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                                                                                                                                                   372
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SIMILARITY: CONTAINS 3 BIR REPEATS.
SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE SPECIFICITY: UBIQUITOUS, EXCEPT PERIPHERAL BLOOD LEUKOCYTES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NKQKMKYDESCELYRMSTYSTEPÄGVPVSERSLARAGEYYTGVNDKVKCFCCGLMLDNWK 94
                                                                                                                                                                                                            LRCWESGDDPWVEHAKWFPRCEFLIRWKGQEFVDEIQGRYPHLLEQ-LLSTSDTTGEENA
                                                                                                                                                                                                                                                                                                                                                                                                                                                   SSLSPNPLNSRAVEDISSSRTNPYSYAMSTEEARFLTYHMWP-LTFLSPSELARAGFYYI 212
EHDIIKQKTQIPLQARELIDTILVKGNAAANIFKNCLKEIDSTLYKNLFVDKNMKYIPTE
                                                                          SALLNAEDEKREEEKEKQAEEMASDDLSLIRKNRMALFQQLTCVLPILDNLLKANVINKQ
                                                                                                                                              DPPIIHFGPGESSSEDAVMMNTPVVKSALEMGFNRDLVKQTVQSKILTTGENYKTVNDIV
                                                                                                                                                                                       LTDWKPSEDPWEQHAKWYPGCKYLLEQKGQEYINNI--HLTHSLEECLVRTTEKT-----
                                                                                                                                                                                                                                                                  STNLPR----NPSMADYEARIFTFGTWIYS--VNKEQLARAGFYALGEGDKVKCFHCGGG
                                                                                                                                                                                                                                                                                                    SLETERFSISNESMOTHAARMRTFMYWPSSVPVQPEQLASAGFYYVGRNDDVKCFCCDGG
                                                                                                                                                                                                                                                                                                                                         GIGDQVQCFCCGGKLKNWEPCDRAWSEHRRHFPNCFFVLGRNLNIRSESDAVSSDRNFPN
                                                                                                                                                                                                                                                                                                                                                                             GPGDRVACFACGGKLSNWEPKDDAMSEHRRHFPNCPFL---
                                                                                                                                                                                                                                                                                                                                                                                                                   ETHADYLLRTGQVVDISDT-IYPRNPAMYSEEARLKSFQNWPDYAHLTPRELASAGLYYT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \tt YGDSAVGRHRKVSPNCRFINGFYLENSATQSTNSGIQNGQYKVENYLGSRDHFALDRPS-\\
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LGDSPIQKHKQLYPSCSFIQNLVSASLGSTSKNTSPMRNSF-AHSLSPTLEHSSLFSGSY 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NKEE---EFVEEFNRLKTFANFPSGSPVSASTLARAGFLYTGEGDTVRCFSCHAAVDRWQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AL121601; CAB95312.1;
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PS50143; BIR_REPEAT_2; 3.
s; Zinc-finger; Repeat; Thiol protease inhibitor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               and this statement is not removed.
requires a license agreement (See
an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Zinc-finger;
26 93
163 230
265 330
450 484
162 162
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                                                                                                               - PSETRRIDDTIFQNPMVQEAIRMGFSFKDIKKIMEEXIQISGSNYKSLEVEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAC50373.1; -.
AAC50518.1; -.
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230
330
484
162
423
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BIR 1.
BIR 2.
BIR 3.
BIR 3.
BIR 3.
C (IN REF. 1).
S -> C (IN REF. 2).
O -> P (IN REF. 2).
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches 163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6e-54;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 1; Length 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Usage
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                                                                                                               411
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Apoptosis; REPEAT REPEAT REPEAT ZN_FING CONFLICT CONFLICT

230 230 329 483 208 317

BIR 1.
BIR 2.
BIR 3.
RING-TYPE.
E -> K (IN
E -> D (IN

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REF.

PROSITE;

PS01282; BIR_REPEAT_1; PS50143; BIR_REPEAT_2; s; Zinc-finger; Repeat.

SMART; SM00238; BIR; 3. SMART; SM00184; RING; 1

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RESULT 8
EMBL, U88990; AAB58376.1; ...

MGD; MG:IO7572; Birc4.

InterPro; IPRO01370; BIR.

InterPro; IPRO01841; Znf_ring.

Pfam; PP00653; BIR; 3.

Pfam; PP00097; zf-03H24; 1.
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SEQUENCE FROM N.A.
STRAIN-C57BL/6 X CBA; TISSUB-Liver;
STRAIN-C57BL/6 X CBA; TISSUB-Liver;
MEDLINE-9620843; Pubmed-8643514;
Uren A.G., Pakusch M., Hawkins C.J., Puls K.L., Vaux D.L.;
"Cloning and expression of apoptosis inhibitory protein homologs function to inhibit apoptosis and/or bind tumor necrosis factor receptor-associated factors.";
Teceptor-associated factors.";
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Q60989; 0088
01-NOV-1997
01-NOV-1997
20-AUG-2001
                                                                                                                                                                                                                                    the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
20-NUG-2001 (Rel. 40, Last anotation update)
BACULOVIRAL IAP REPEAT-CONTAINING PROTEIN 4 (INHIBITOR OF APOPTOSIS PROTEIN 3) (X-LINKED INHIBITOR OF APOPTOSIS PROTEIN) (X-LINKED INHIBITOR OF APOPTOSIS PROTEIN) (X-LINKED INHIBITOR OF APOPTOSIS PROTEIN) (X-LINKED IAP)
(IAP HOMOLOG A) (MIRA) (MIRA) (MIHA.
                                                                                                                                                         EMBL; U36842; AAC52594.1; EMBL; U88990; AAB58376.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -i- SIMILARITY: BELONGS TO THE IAP FAMILY.
-i- SIMILARITY: CONTAINS 3 BIR REPEATS.
-i- SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Farahani R., Lefebvre C., Korneluk R.G., Mackenzie A.E.;
Submitted (JUN-1997) to the EMBL/GenBank/DDBJ databases.
-i- FUNCTION: APOPTOTIC SUPPRESSOR, INHIBITOR OF CASPASE-3
CASPASE-7 (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID-10090;
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Sciurognathi; Muridae;
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                 20-AuG-2001 (Rel. 40, Created)
20-AuG-2001 (Rel. 40, Last sequence update)
20-AuG-2001 (Rel. 40, Last annotation update)
90-AuG-2001 (Rel. 40, Last annotation update)
9ACULOVIRAL IAP REPEAT-CONTAINING PROTEIN 4 (
PROTEIN 3) (X-LIKKED INHIBITOR OF APOPTOSIS P.
(IAP HOMOLOG A) (RIAP) (RIAP-3).
BIRC4 OR API3 OR XIAP.
 Eukaryota;
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          norvegicus
vegicus (Rat)
Metazoa; Chc
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Chordata;
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32.5%;
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Pred. No. 7e-54;
2; Mismatches 156;
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Vertebrata;
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                                     (INHIBITOR OF APOPTOSIS PROTEIN) (X-LINKED IAP)
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Euteleostomi;
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LGESVVRTAEKT

TTGENYKTVNDIVSALLNAEDEKREEEKEKQAEEMASDDLSLIRKNRMALFQQLTCVLPI

LLSTSDTTGEENADPPIIHFGPGESSSEDAVMMNTPVVKSALEMGFNRDLVKQTVQSKIL

- PSVTKKIDDTIFQNPMVQEAIRMGENFKDIKKTMEEKLQ

GEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWYPGCKYLLDEKGQEYINNI----

HLTHS

298 291

418

-------ENSLETLRFSISNLSWOTHAARMETEKYWPSSVPVQPEQLASAGETYY
RSESGVSSDRNFPNSTNSPR----NPAMAEYDARIVTEGTWLYS--VNKEQLARAGEYAL
GRNDDVKCFCCDGGLRCWESGDDPWVEHAKWFPRCEFLIRMKGOEFVDEIOGRYPHLLEO

Qy dq

LSPTLEHSSLFSGSYSSLSPNPLNSRAVEDISSSRTNPYSYAMSTEEARFLTYHMWP-LT

128

----LDRPSETHADYL-----LRTGQVVDISDT-IYPRNPAMCSEEARLKTFQNWPDYA

250

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50

NSNKQKMKYDFSCELYRMSTYSTFPAGVPVSERSLARAGFYYTGVNDKVKCFCCGLMLDN

DTNKDE---EFVEEFNRLKTFANFPSSSPVSASTLARAGFLYTGEGDTVQCFSCHAAVDR

Query Match Best Local Matches 20

Similarity

27.6%;

Score 904.5; DB 1; Pred. No. 1.6e-53;

Length Indels

Mismatches

155;

173;

Gaps

15;

92

Conservative

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REPEAT
REPEAT
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SEQUENCE
                                                                                                                Apoptosis; Zinc-finger; Repeat
REPEAT 26 93 B:
                                                                                                                                                                 SMART; SM00238; BIR; 3.
SMART; SM00184; RING; 1.
SMOSITE; PS01282; BIR_REPEAT_1;
PROSITE; PS50143; BIR_REPEAT_2;
                                                                                                                                                                                                                                                                           Interpro; IPRO01370; BIR. Interpro; IPRO01841; Znf_ring. Pfam; PF00653; BIR; 3. Pfam; PF00097; Zf-C3HC4; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announco/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the
                                                                                                                                                                                                                                                                                                                                                                                                                                                   or send an email to license@isb-sib.ch).
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NCBI_TaxID-10116;
                                                                                                                                                                                                                                                                                                                                                                                        EMBL; AB033366; BAA85304.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Saito
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ttus norvegicus X-linked inhibitor of apoptosis (riap3) mrna. mitted (OCT-1999) to the EMBL/GenBank/DDBJ databases. FUNCTION: APOPTOTIC SUPPRESSOR. INHIBITOR OF CASPASE-3 AND CASPASE-7 (BY SIMILARITY). SUBCELLULAR LOCATION: CYTOPLASMIC (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIMILARITY: BELONGS TO THE IAP FAMILY.
SIMILARITY: CONTAINS 3 BIR REPEATS.
SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
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   230 B
329 B
483 R
56072 MW;
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BIR 1.
BIR 2.
BIR 3.
RIMG-YYPE.
RIMG-YYPE.
RESSOE3C77461A469 CRC64;
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Adams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D., Amanatides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F., George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N., Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.Y., Brandon R.G., Mogres Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D. Wan K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G Abril J.F., Agbayani A., Baxendale J., Bayraktaroglu L., Beasley E.M., Basley E.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE-Eye imaginal disk;
MEDLINE-96128128; PubMed-8548811;
Hay B.A., Wassarman D.A., Rubin G.M.;
"Drosophila homologs of baculovirus inhibitor of apoptosis proteins function to block cell death.";
                                                                                                                                                                                                                                                                     Duckett C.S., Nava V.E., Gedrich R.W., Clem R.J., van Dongen J.L., Gilfillan M.C., Shiels H., Hardwick J.M., Thompson C.B.;
"A conserved family of cellular genes related to the baculovirus i gene and encoding apoptosis inhibitors.";
EMBO J. 15:2685-2694(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TAP2_DROME STANDARD; PRT; 498 AA. Q24307; Q24117; Q24115; Q24149; Q9Y7G1; D1-KOV-1997 (Rel. 35, Created) C1-KOV-1997 (Rel. 35, Last sequence update) 20-AUG-2001 (Rel. 40, Last annotation update) APOPTOSIS INHIBITOR (INHIBITOR OF APOPTOSIS
                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. STRAIN-CANTON-S;
                                                                                                                                                                                                                                                                                                                                                                                                              MEDILIES-96149249; PubMed-8552191;
Liston P., Roy N., Tamal K., Lefebvre C., Baird
Farahani R., McLean M., Ikeda J., Mackenzie A.,
"Suppression of apoptosis in mammalian cells by
family of IAP genes."
Nature 379:349-353(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Tracheata; Ho
Pterygota; Neoptera; Endopterygota; Diptera;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HOMOLOG A) (IAP-LIKE PROTEIN) (DILP) IAP2 OR ILP OR DIHA OR CG8293.
                                                                                                                            MEDLINE=20196006; PubMed=10731132;
                                                                                                                                              STRAIN-BERKELEY;
                                                                                                                                                           SEQUENCE FROM
                                                                                                                                                                                          Thesis (1991),
                                                                                                                                                                                                                        STRAIN-CANTON-S;
                                                                                                                                                                                                                                        SEQUENCE
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Korneluk R.G.;
NAIP and a related
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RA Fosler C., Gabrielian A.E., Garg N.S., Gelbart W.M., Glasser K.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,
RA Hostin D., Houston K.A., Howland T.J., Wei M.-H., Ibegwam C.,
RA Hostin D., Houston K.A., Howland T.J., Wei M.-H., Ibegwam C.,
RA Kimmel B.E., Kodira C.D., Kraft C., Kravitz S., Kulp D., Lai Z.,
RA Lasko P., Lei Y., Levitsky A.A., Li J., Li Z., Lilang Y., Lin X.,
RA Liu X., Mattei B., McIntosh T.C., McLeod M.P., McPherson D.,
RA McKulov G., Milshina N.V., Mobarry C., Morris J., Moshrefi A.,
RA Mount S.M., Moy M., Murphy B., Murphy L., Muzny D.M., Nelson D.L.,
RA Mount S.M., Moy M., Murphy B., Murphy L., Muzny D.M., Nelson D.L.,
RA Mount S.M., Moy M., Miton K., Sunders R.D.C., Scheeler F., Shen H.,
RA Mount S.M., Fittman G.S., Pan S., Pollard J., Puri V., Reese M.G.,
RA Melson D.R., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M.,
RA Reinert K., Remington K., Saunders R.D.C., Scheeler F., Shen H.,
RA Spier E., Siden Klamos I., Singson M., Skupski M.P., Shith T.,
RA Syler E., Steden Klamos I., Singson M., Skupski M.P., Smith T.,
RA Syler E., Steden Klamos I., Singson M., Skupski M.P., Smith T.,
RA Syler E., Steden K., Mary M., Weinstock G.M., Weissenbach J.,
RA Williams S.M., Woodage T., Worley K.C., Wu D., Yang S., Yao Q.A.,
RA Williams S.M., Woodage T., Worley K.C., Wu D., Yang S., Yao Q.A.,
RA Zheng X.H., Zhong F.N., Zhong M., Zhang M. Zhao Q., Zheng L.,
RA Zheng S.H., Zhong E.N., Rubin G.M., Venter J.C.;
RT "The genome sequence of Drosophila melanogaster.";
Sclence 287:2185-2195 (2000).
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UTen A.G., Pakusch M., Hawkins C.J., Puls K.L., Vaux D.L.;
"Cloning and expression of apoptosis inhibitory protein homologs
function to inhibit apoptosis and/or bind tumor necrosis factor
receptor-ssociated factors.";
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Cherry J.M., Cawley S.
de Pablos B., Delcher
Dodson K., Doup L.E.,
                                                                                                                                                                                                                                                           EMBL;
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EMBL;
Apoptosis; Zinc-finger; Repeat
REPEAT 9 76 B
REPEAT 113 179 B
                                                                                                                          InterPro; IPR001370; BIR.
InterPro; IPR001841; Znf_ri
Pfam; PF00653; BIR; 3.
Pfam; PF00097; Zf-C3HC4; 1.
                                                                                                                                                                                                      EMBL; U38809; AAB08398.1; - FlyBase; FBgn0015247; Iap2.
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the European Bioinformatics Institute. There a
use by non-profit institutions as long as i
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SIMILARITY: CONTAINS 3 BIR REPEATS.
SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C. Natl. Acad. Sci. U.S.A. 93:4974-4978(1996).
FUNCTION: APOPTOTIC SUPPRESSOR. OVEREXPRESSION
HID-DEPENDENT CELL DEATH IN THE EYE.
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; U45881; AAC46988.1;
; U32373; AAC47155.1;
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AE003808; AAF58095.1; -.
U38809; AAB08398.1; -.
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                                                                                           SM00238; BIR; 3.
SM00184; RING; 1
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                                                     PS50143; BIR_REPEAT_2;
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Botchan M.R., Bouck J., Bu
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RESULT II
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ID IAP9_NPVOP

AC P41437;

DT 01-NOV-1995 (Rel. 32, C
DT 01-NOV-1995 (Rel. 32, L
DT 20-AUG-2001 (Rel. 40, L
DE APOPTOSIS INHIBITOR 3
CR 1AP3 OR IAP.
OS Orgyla pseudotaugata mu
OC Viruses; OSDNA VIruses,
OX NCBI_TAXID-164623;
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Best Local Similarity
Matches 182; Conserv
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Orgyla pseudotsugata mul
Viruses; dsDNA viruses,
Nucleopolyhedrovirus,
NCBI_TaxID=164623;
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RING-TYPE.

G > V (IN REF. 2).

R > K (IN REF. 2).

ER > AG (IN REF. 3).

E > K (IN REF. 3).

E > Q (IN REF. 6).

A -> Q (IN REF. 2 AND 9.

P -> T (IN REF. 6).

A -> T (IN REF. 2).

A -> T (IN REF. 6).
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Pred. No. 9e-43;
5; Mismatches 206;
                                                                                                                             PRT;
                          id polyhedrosis virus (OpMNPV).
stage; Baculoviridae:
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Best Local 9
Matches 107
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ZN_FING
SEQUENCE
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Birnbaum M.J., Clem R.J., Miller L.K.;
"An apoptosis-inhibiting gene from a nuclear polyhedro
encoding a polypeptide with Cys/His sequence motifs.";
J. Virol. 68:2521-2528(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                           pfam; pe00053; BIR; 2.
pfam; pe00097; zf-C3HC4; 1.
SMARR; SM00128; BIR; 2.
SMARR; SM00184; RING; 1.
PROSITE; PS001282; BIR_REPEAT_1; 2.
PROSITE; PS50143; BIR_REPEAT_2; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; L22564; AAB02610.1; -. EMBL; U75930; AAC59034.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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-I- FUNCTION: ACTS BY BLOCKING CELLULAR APOPTOSIS
-I- SUMILARITY: CONTAINS 2 BIR REPEATS.
-I- SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE-97271300; PubMed-9126251; Ahrens C.H., Russell R.R., Funk C.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                      Apoptosis; Zinc-finger; Repeat.
REPEAT 18 84 B1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           polyhedrosis virus genome
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SEQUENCE FROM N.A.
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InterPro; IPR001841; Znf_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "The sequence of the Orgyia pseudotsugata multinucleocapsid polyhedrosis virus genome.";
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European Bioinformatics Institute. There a
by non-profit institutions as long as i
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                                                                              VQSKILTTGENYKTVNDIVSALLNAEDEKREEEKEKQAEEMASDDLSLIRKNRMALFQQL
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255 F
30076 MW;
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Pred. No. 1.3e
51; Mismatches
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BIR 2.
RING-TYPE.
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20-AUG-2001 (Rel. 40, Created)
20-AUG-2001 (Rel. 40, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
BACULOVIRAL IAP REPEAT-CONTAINING PROTEIN 1E (NEURONAL APOPTOSIS INHIBITORY PROTEIN 5).
BIRCLE OR NAIP5 OR NAIP-RS3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN-129/SV;
MEDLINE-9941767; PubMed-10486205;
Endrizzi M., Huang S., Scharf J.M., Ke
Kunkel L.M., Miller W., Dietrich W.F.;
Comparative sequence analysis of the
                                                                                                                                                                                                                                                                                                     the Buropean Bioinformatics Institute. There are no rest
use by non-profit institutions as long as its content
modified and this statement is not removed. Usage by are
entities requires a license agreement (See http://www.isb
or send an email to license@isb-sib.ch).
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MEDLINE-99431076; Pubmed-10501978;

Huang S., Scharf J.M., Growney J.D., Endrizzi M.G., Di
"The mouse Naip gene cluster on Chromosome 13 encodes
functional transcripts";
functional transcripts";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BIRE_MOUSE
PROSITE: PS01282; BIR_REPEAT_1;
PROSITE: PS0143; BIR_REPEAT_2;
Apoptosis: Repeat: Multigene fam
REPEAT 60 127
REPEAT 159 227
BIF
                                                                                                                                                                                                                 EMBL; AF135492; AAD56764.1; -. EMBL; AF131205; AAD56760.1; -. EMBL; U66326; AAC52974.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          exon 5."
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[3]
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Best Local Similarity 27.3
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Q9JIB6; P81704; Q
20-AUG-2001 (Rel
20-AUG-2001 (Rel
20-AUG-2001 (Rel
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Pred. No. 3.9e-26;
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EMBL: 0F6327; AAC52975.1; -
MGD: MG:1298222; Bircif.
InterPro; IPR001370; BIR.
Pfam: PF0653; BIR.; 3.
SMART; SM00238; BIR; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Scharf J.M., Damcon D., Frisella A., Bruno S., Beggs A.H., Kunkel L.M., Dietrich W.F., "The mouse region syntenic for human spinal muscular atrophy lies within the Lgn1 critical interval and contains multiple copies of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
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Genomo Res. 10:1095-1102(2000).
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Eukaryota: Metazoa: Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Rodentia; Sclurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
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REPEAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in
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                                                       LSAAGFVFTGKRDTVQCFSCGGSLGNWEEGDDPWKEHAKWFPKCEFLQSKKSSEEIAQYI
                                                                                  LARAGEYYIGPGDRVACFACGGKLSNWEPKDDAMSEHRRHFPNCPFLEN--SLETLRESI
                                                                                                                                           SSLFSGSYSSLSPNPLNSRAVEDISSSRTNPYSYAMSTEEARFLTYHMWPLTF--LSPSE
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                                                                                                                                                                                               CGLMLDNWKLGDSPIQKHKQLYPSCSFIQNLVSASLGSTSKNTSPMRNSFAHSLSPTLEH
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Pred. No. 1.1e:
73; Mismatches
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BACULOVIRAL I
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MEDLINE-204147747, PubMed-10958627;

Endrizzi M.G., Hadinoto V., Growney J.D., Mil

"Genomic sequence analysis of the mouse Naip

Genome Res. 10:1095-1102(2000).
                                                                                                                             PROSITE;
                                                                                                                                                                                                                                                                                                                                use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities reguires a license agreement (See http://www.isb·sib.ch/announce/or send an email to license@isb·sib.ch).
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between the Swiss Institute of Bloinformatics and the En
the European Bioinformatics Institute. There are no resti
                                                                            REPEAT
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FUNCTION: PREVENTS MOTOR-NEURON APOPTOSIS INDUCED BY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               POALHTLITKNYLFRTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EEQLRRLQEE----RTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -VMMNTPVVKSALE----MGFNRDLVKQTVQSKI---LTTGENYKTVNDIVSALLNAEDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SAGFYYYGRNDDYKCFCCDGGLRCWESGDDPWYEHAKWFPRCEFLIRMKGQ-EFYDEIQG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QIPLQARELIDTILYKGNAAANIFKNCL-KEIDSTLYKNLFVDKNMKYIPTEDVSGL-SL 558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KTTFLK-RIAFLWASGCCPLLYRFQLVFYLSLSSITP--DQGL-ANTICTQ------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KREEEKEKQAEEMASDDLSLIRKNRMALFQQLTCVLPILDNLLKANVINKQEHDIIKQKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FCHMNLPEVCSSLGTDHLLGCDVSIISKHVSQPVQGALTIPEVFSNLSSVMCVEGEAGSG
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                                                                                                                                                                                                                                                                                  AF242433; AAF82749.1;
                                                                                                                             PS01282; BIR_REPEAT_1; 2. PS50143; BIR_REPEAT_2; 3.
                                                                                                    Repeat;
                              159
278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (Rel. 40, Created)
(Rel. 40, Last sequence update)
(Rel. 40, Last amoutation update)
IAP REPEAT-CONTAINING PROTEIN 16 (NEURONAL APOPTOSIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -LLGAGGCISEV---CLSSSIQQLQHQVLFL-----LDDYSGLASL
                                                   ; Multigene
127
227
                                                                                                                                                                                                                                                          Birclg
         159662
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      BIR
                                                   family.
BIR 1.
BIR 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
3.
ClDFFBA359893EOD CRC64;
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Query Match

15.2%;

Score

498.5;

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Length 1402;

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RESULTANT
IAPI_DR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IAP1_DROME
Q24306;
Q1-NOV-1997
Q1-NOV-1997
20-AUG-2001
SEQUENCE FROM N.A.
TISSUE-Eye imaginal disk:
MEDLINE-96128128; PubMed-8548811;
HABY B.A., Wassarman D.A., Rubin G.M.;
Plosophila homologs of baculovirus inhibitor of approximation to block cell death.";
Cell 83:1253-1262(1995)
--- FUNCTION: APOPTOTIC SUPPRESSOR OVEREXPRESSION
HID-DEPENDENT CELL DEATH IN THE EYE.
                                                                                                                                                                                                                                                                                                                         Drosophila melanogaster (Fruit fly).

Bukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta:

Btaryota; Metazoa; Endopterygota; Diptera; Brachycera; Muscomorpha;

Ephydroidea; Drosophilidae: Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROTEIN).
IAP1 OR TH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01.NOV-1997 (Rel. 35, Greated)
01.NOV-1997 (Rel. 35, Last sequence update)
20.NUG-2001 (Rel. 40, Last sequence update)
APOPTOSIS 1 INHIBITOR (INHIBITOR OF APOPTOSIS 1) (DIAP1) (THREAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DROME
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -VMMNTPVVKSAL-----EMGFURDLVKQTVQSKILTTGENYKTVNDIVSALLNAED
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69; Mismatches 217;
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SMART; SM00184; RING; 1
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Pfam; PF00097; zf-C3HC4; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; L49440; AAC41609.1; -.
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-i- SIMILARITY: CONTAINS 2 BIR REPEATS.
-i- SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
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InterPro; IPR001841; Znf_ring.
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RING-TYPE.
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Pred. No. 2.3e-25;
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